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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,072	10/13/2003	Steven E. Koenck	38219R2	3061

7590 04/06/2005

John H. Sherman, c/o Legal Department
Intermec Technologies Corporation
550 Second Street, S.E.
Cedar Rapids, IA 52401

EXAMINER

TRINH, HOA B

ART UNIT	PAPER NUMBER
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2814

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/684,072

Applicant(s)

KOENCK, STEVEN E.

Examiner

Vikki H. Trinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) 21-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) ☐ Notice of Informal Patent Application (PTO-152) |
| 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

Election/Restrictions

1. Applicant's election without traverse of Group II, claims 11-20, is acknowledged.
2. Claims 21-30 are from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on Jan. 10, 2005. Applicant elects Group II, which directs to a method of reducing electromagnetic interference. Hence, newly added claims 21-30 have been withdrawn because they direct to a product.

Priority

3. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 11-30 of this application. Further, the prior application was abandoned before the filing of this present application.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "16" has been used to designate both lead and LOUT. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Huang ((5138431))

As to claim 11, Huang discloses a method of reducing electromagnetic interference generated within an integrated circuit device package wherein the integrated circuit device package 300 (fig. 4) comprises a wafer 22a (fig. 4) having a wafer circuitry 24 (fig. 4) disposed thereon; a plurality of conductors 22b (fig. 4); and a structure 300 (fig. 4) that encapsulates and supports the wafer 22a (fig. 4); said method comprising the steps of applying magnetic material (ferromagnetic material, col. 5, lines 29-30) that exhibits a lossy characteristic in the vicinity of at least one of the electrically conductive paths such that the magnetic material is not part of any of the electrically conductive paths for carrying all of the electric current flowing to and from the wafer circuitry' to attenuate the highest frequency signal components while introducing generally little inductance effects of overshoot and ringing associated with the series inductance of the at least one of the electrically conductive paths (col. 5, lines 10-15).

As to claim 12, the structure 300 (fig. 4) that encapsulates and supports the wafer 22a (fig. 4) comprises an encapsulating medium (fig. 4) and the method further comprises introducing magnetic material that exhibits a lossy characteristic into the encapsulating medium such that the magnetic material (col. 5, lines 29-30) is not part of any of the electrically

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conductive paths for carrying all of the electric current flowing to and from the wafer circuitry, so as to cause the series inductance of the at least one of the electrically conductive paths to behave as a lossy inductor so as to attenuate the highest frequency signal components while introducing generally little inductance effects of overshoot and ringing (col. 5, lines 10-25).

As to claim 13, a relatively small amount of magnetic material (col. 5, lines 8-15) that exhibits a lossy characteristic is introduced into the encapsulating medium such that the magnetic material is not part of any of the electrically conductive paths for carrying all of the electric current flowing to and from the wafer circuitry, and so that the relative permeability in the vicinity of the at least one of the electrically conductive paths is not so high as to cause significant mutual coupling with other of the plurality of conductors 22b (fig. 4).

As to claim 14, the introduction of the relatively small amount of magnetic material (col. 5, lines 29-30) that exhibits a lossy characteristic such that the magnetic material that is not part of the electrically conductive path for carrying all of the electric current flowing to and from the wafer circuitry results in a relative permeability of the encapsulating medium that is sufficient to desirably effect the series inductance of the at least one of the electrically conductive paths (col. 5, lines 15-20).

As to claim 15, the mutual inductance between the one of the plurality of electrically conductive paths and an adjacent conductor is small with respect to the self-inductance (col. 5, lines 8-15) of each conductor 22b (fig. 4).

As to claim 16, the magnetic is applied such that the adjacent conductor 22b (fig. 4) is substantially eliminated.

As to claim 17, the magnetic (col. 5, lines 29-30) surrounds one of the plurality of the conductive paths (fig. 4) and chokes undesired high frequency signals immediately external to the at least one of the electrically conductive paths without substantially affecting data signals passing therethrough.

As to claim 18, the structure 300 (fig. 4) comprises an encapsulating medium that is substantially free of magnetic material (col. 5, lines 15-20).

As to claim 19, structure 300 (fig. 4) has an encapsulating medium that contains a small amount of magnetic material that is not part of any of the conductive paths for carrying all of the electric current flowing to and from the wafer circuitry, to further achieve the reduction of electromagnetic interference (col. 5, lines 10-20).

As to claim 20, the magnetic material (col. 5, lines 29-30) that is not part of any of the electrically conductive paths for carrying all of the electric current flowing to and from the wafer circuitry 24 (fig. 4), substantially surrounds the one of the plurality of electrically conductive paths at the portion of such one path relatively near to the wafer 22a (fig. 4).

Conclusion

Kurihara (5,703,396) and Van Horn et al. (6,822,438) each disclose a semiconductor device having a wafer, circuitry, conductors, and encapsulating structure. (see entire documents)

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Vikki Trinh whose telephone number is (571) 272-1719. The Examiner can normally be reached from Monday-Friday, 9:00 AM - 5:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Wael Fahmy, can be reached at (571) 272-1705. The office fax number is 703-872-9306.

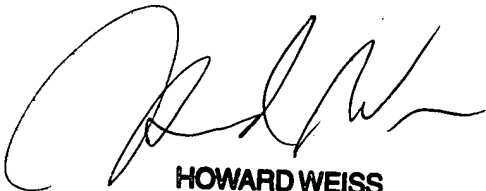
Any request for information regarding to the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Also, status information for published applications may be obtained from either Private PAIR or Public Pair. In addition, status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. If you have questions pertaining to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests

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to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.

Vikki Trinh,
Patent Examiner
AU 2814



HOWARD WEISS
PRIMARY EXAMINER